UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,315	10/01/2004	Rolf-Dieter Pavlik	2002P03969WOUS	4839

7590 10/25/2010

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
LI, GUANG W	

ART UNIT	PAPER NUMBER
2478	

MAIL DATE	DELIVERY MODE
10/25/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,315	PAVLIK ET AL.	
	Examiner	Art Unit	
	GUANG LI	2478	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,16,19,23,24,27,29,31,32 and 34-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,16,19,23,24,27,29,31,32 and 34-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 May 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment date 08/10/2010

2. Claims 1, 16, 19, 23-24, 27, 29, 31-32 and 34-38 are presented for examination.

3. The rejections are respectfully maintained and reproduced infra for applicant's convenience.

Response to Arguments

4. Applicant's arguments filed 08/10/2010 have been fully considered but they are not persuasive.

5. Applicant argues the following limitation(s):

- Applicant argues, stated in the remark on page 2 of remark, "Examiner cannot identify in Figure 1 of the Swales reference two software modules (both in the web server) between which internet protocols are used for communication." On the contrary, Swales teaches general purpose network protocols using this hardware include the increasingly dominant TCP/IP, and Novell IPX, Digital Equipments DECNET and others. The TCP/IP-Ethernet combination, in particular, is the most widely deployed computer network interface in use, and therefore has minimum cost to implement and support (see Swales: col.1 lines 56-61; col.4 lines 6-7). On figure 1 of Swales discloses this enables the data transfer between the application program 22 and the user 2 through the Internet 14. The application program provides data from the process control system 6 (Swale: col.4 lines 13-16). Swales clearly stated the data transfer between the application program 22 and the user 2 this is clearly stated the communication

between the application program and the user is use Internet protocol to communicate. In support of limitation, Swales further disclose communication is based on a client-server basis, using a number of established protocols that allow for communication and file transfers between the client and the server. The most widely used protocol is Internet Protocol (IP) (see Swales: col.4 lines 3-7). This clearly shows Swales teaches the limitation of Internet protocol are provided and use for communication between the software module of the web server and for communication between the software modules and components outside of web server. Swales particular point out the widely used for communication between the client and the server is Internet Protocol (see Swales: col.4 lines 3-7).

- Applicant argues, stated in the remark on page 2 of remark, "Further, with regard to both claims 11 and 29, the rejection cites Figure 3 of Swales for illustration of a server module - but applicants ask of the Examiner, "Where is the 'expansion module' which is recited as being part of the claimed web server?" On the contrary, Swales teaches all signals between the PLC 32 and the web server 30 are through the back plane 34 rather than over a set of cables which would normally have to be coupled to input/output modules that are themselves plugged into the back plane 34 (see Swales: col.4 lines 52). In the broadest reason of interpretation, the expansion module is a software module plug into the web server. Since the input/output modules (Swales: PLC Fig.3:block 32) are plug into the backplane 34 (see Fig.3) and the backplane are connected to the web server, it clearly Swales discloses the input/output modules are the expansion module of web server 30. In addition, Woest also teaches this missing limitation by discloses the expansion module is also a plug in module which plugs into a connector on a back plane in a node of a facilities management system (see Woest: col.29 lines 6-27).

- Applicant argues, stated in the remark on page 3 of remark, Applicants suggest that the rejection is in error for failure to show two TCP/IP stacks - one for the server and one for the automation device. The citation at col. 3, line 65 - col. 4 line 14 does not provide any indication that the device 23c of Figure 1 includes a TCP/IP stack." On the contrary, Swales teaches the Ethernet driver 48 also provides a transmit request interface, and a receive indication interface to a TCP/IP stack 54 (see Swales: col.4 lines 11; col.5 lines 31-38). Swales further teaches If any messages are in the receive queue, it passes the receive buffer to the TCP/IP stack 54. The TCP/IP stack 54 copies the buffer, and sometime later calls the Ethernet driver 48 to return the buffer and place the returned buffer back into the receive queue (see Swales: col.5 lines 35-46). In addition, Swales teaches a memory 86 stores the application programs and provides storage locations and registers for various statistics of the PLC system 70. It is to ordinary skill in the art that memory are consisting of multiple buffers that use to execute the application programs. Since the Swales teaches the TCP/IP stacks of web server and client have memory consisting of the buffers, therefore, Swales does teaches the limitation of a real-time Ethernet connection between the TCP/IP stack of the web server and a TCP/IP stack of an automation device. With respect to independent claim 38, claim 38 is not persuasive based on argues same limitation in claim 34 as set forth hereinabove. Based on the all the reasons above, Applicant's arguments have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 11, 16, 19, 23-24, 27, 29 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swales (US 6,321,272) in view of Lindner et al (US 6,640,140) and further in view of Woest (US 5,444,851).

8. Regarding claim 11, Swales teaches a computer configured to operate as a web server (Web server 30 see Swales: Fig.2 block 30) comprising software modules and an expansion module (Swales: Fig.3 web server module),

wherein Internet protocols are provided and used for communication between the software modules and for communication between the software modules in the web server and communication between the software modules and components outside of the web server (the data transfer between the application program 22 and the user 2 this is clearly stated the communication between the application program and the user is use Internet protocol to communicate and TCP/IP protocol was use in and out of network "General purpose network protocols using this hardware include the increasingly dominant TCP/IP, and Novell IPX, Digital Equipments DECNET and others. The TCP/IP-Ethernet combination, in particular, is the most widely deployed computer network interface in use, and therefore has minimum cost to implement and support" see Swales: col.1 lines 56-61; col.4 lines 6-7),

the server providing through the expansion module a first mechanism for implementing an automation functionality (programmable controller use to control the process control system "field of programmable controllers and more particularly to a system for the exchange of time-critical information between control devices coupled to an intranetwork such as would be common in the fields of factory automation and industrial process control" see Swales: col.1 lines 15-20) and

the server further providing a mechanism (communication link between Ethernet driver 48 and network 42 see Swales: Fig. 3) to directly access the real-time communication level ("provide an interface between the general purpose network and the industrial control system that will allow the transfer of real time control data with guaranteed delivery times" see Swales: col.2 lines 31-34) of a real-time Ethernet,(web server module can be adapted to different kind of network "Examples of such networks are Ethernet, IBM Token Ring, Fiber Distributed Data Interface, the X.25 international packet switch network and many offerings from telephone companies such as Asynchronous Transfer Mode" see Swales: col.1 lines 49-55),

wherein the expansion module is connected to an input/output module of an automation system (Programmable logic controller 110 able support the input 122 and output devices 120 and connected to web server through Intranet 102 see Swales: Fig.5) and wherein the web server comprises a connection to a communication network (web server module 30 within web server connects to network 42 see Swales: Fig.3 blocks 30 and 42).

Swales does not explicitly disclose an expansion module the combination providing the functions of programmable logic controller.

Lindner teaches an expansion module the combination providing the functions of programmable logic controller (the functionality services is within the PLC devices that provide functionality of PLC "The module 11 having ladder scan functionality services I/O modules 22 connected to devices 23 that are either sensors or actuators, solving so-called ladder logic to determine outputs commanding the next state of each associated device based on all inputs for that device" see Linder: col. 3 lines 49-64) in order to enhance automation system for control purpose in view of Lindner.

It would have been obvious to one of ordinary skill in the art, having the teachings of Swales and Lindner before them at the time the invention was made to modify the expansion module which provides the functions of programmable logic controller as taught by Lindner in order to enhance automation system for control purpose in view of Lindner.

The modified Swales does not explicitly teaches wherein the server is enabled, via connection through the expansion module to one or more automation devices, to control at least one device taken from the group consisting of a computer numerical control device, a vale and a drive.

However Woest teaches the server is enabled, via connection through the expansion module to one or more automation devices (expansion module to form network control unit "The expansion module is also a plug in module which plugs into a connector on a back plane in a node of a facilities management system" see Woest: col.29 lines 6-27), to control at least one device taken from the group consisting of a computer numerical control device, a vale and a drive (control using the expansion module to control the air conditioning and lighting "A network control unit (NCU) in a facilities management system monitors and supervises heating ventilating and air conditioning (HVAC), lighting, and building functions" see Woest: col.29 lines 29-49) in order to produce controlled variation of system performance based on the quality of measured data (see Woest: col.7 lines 18-30)

It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of modified Swales to include (or to use, etc.) the server is enabled, via connection through the expansion module to one or more automation devices, to control at least one device taken from the group consisting of a computer numerical control device, a vale and a

drive. as taught by Woest in order to produce controlled variation of system performance based on the quality of measured data (see Woest: col.7 lines 18-30).

9. Regarding claim 16, the modified Swales taught the web server according to claim 11, as set hereinabove. Swale further teaches wherein the web server is adapted for configuration and administration of the software modules (administrator access the web server to control the backplane application "The gateway 72 contains a firewall to provide the necessary security and couples the PLC system 70 through an intranetwork 74 controlled by a network administrator 76" see Swales: col.9 lines 65-67 and col.10 lines 1-12).

10. Regarding claim 19, the modified Swales taught the web server according to claim 11, as set hereinabove. Swale further teaches wherein the expansion module comprises a connection to an industrial automation system (interface between the general purpose network and the **industrial control system** that will carry on-demand traffic from computer systems, operator terminals, and alarm systems see Swales: col.2 lines 35-39).

11. Regarding claim 23, the modified Swales taught the web server according to claim 11, as set hereinabove. Swale further teaches wherein the web server comprises a connection to Internet via a firewall (A firewall or security for the overall system can be included in the Web Server 30, but is generally maintained as part of the network interface 16 see Swales col.4 lines 39-41).

12. Regarding claim 24, the modified Swales taught the web server according to claim 11, as set hereinabove. Swale further teaches wherein the web server is connected via a communication network to a web browser as a control and monitoring system (The browser 10 functions as a remote human-machine interface or HMI control of the process control system and user at a

remote location utilizing a browser which controlling a programmable controller system see Swales col.4 lines 31-33; Fig.7).

13. Regarding claim 27, modified Swales taught the web server according to claim 11, as set hereinabove. Swale further teaches wherein the web server comprises a real-time operating system (A real time operating system 44 controls the interaction between the components. The operating system 44 allocates central processor (CPU) 46 to various tasks, provides memory management, and provides a set of message services and signal services see Swales col.5 lines 9-13).

14. Regarding claim 29, Swales teaches an automation system comprising a computer configured to operate as a web server (Web server 30 see Swales: Fig.2 block 30) comprising software modules and wherein Internet protocols are provided and used for communication between the software modules and for communication between the software modules in the web server and components outside of the web server (Swales clearly stated the data transfer between the application program 22 and the user 2 this is clearly stated the communication between the application program and the user is use Internet protocol to communicate and TCP/IP protocol was use in and out of network "General purpose network protocols using this hardware include the increasingly dominant TCP/IP, and Novell IPX, Digital Equipments DECNET and others. The TCP/IP-Ethernet combination, in particular, is the most widely deployed computer network interface in use, and therefore has minimum cost to implement and support" see Swales: col.1 lines 56-61; col.4 lines 6-7), the expansion module (Swales: Fig.3 web server module) providing an automation functionality (programmable controller use to control the process control system "field of programmable controllers and more particularly to a system for the exchange of time-

critical information between control devices coupled to an intranetwork such as would be common in the fields of factory automation and industrial process control" see Swales col.1 lines 15-20) within connection to an input/output module of an automation system (Programmable logic controller 110 able support the input 122 and output devices 120 and connected to web server through Intranet 102 see Swales: Fig.5) and the server further comprising a connection providing direct access to the real-time communication level ("provide an interface between the general purpose network and the industrial control system that will allow the transfer of real time control data with guaranteed delivery times" see Swales: col.2 lines 31-34) of a real-time Ethernet(web server module can be adapted to different kind of network "Examples of such networks are Ethernet, IBM Token Ring, Fiber Distributed Data Interface, the X.25 international packet switch network and many offerings from telephone companies such as Asynchronous Transfer Mode" see Swales: col.1 lines 49-55).

Swales does not explicitly disclose an expansion module, the combination providing the functions of programmable logic controller.

Lindner teaches an expansion module, the combination providing which provides the functions of programmable logic controller (the functionality services is within the PLC devices that provide functionality of PLC "The module 11 having ladder scan functionality services I/O modules 22 connected to devices 23 that are either sensors or actuators, solving so-called ladder logic to determine outputs commanding the next state of each associated device based on all inputs for that device" see Linder: col. 3 lines 49-64) in order to enhance automation system for control purpose in view of Lindner.

It would have been obvious to one of ordinary skill in the art, having the teachings of Swales and Lindner before them at the time the invention was made to modify the expansion module which provides the functions of programmable logic controller as taught by Lindner in order to enhance automation system for control purpose in view of Lindner.

However Woest teaches the server is enabled, via connection through the expansion module to one or more automation devices (expansion module to form network control unit "The expansion module is also a plug in module which plugs into a connector on a back plane in a node of a facilities management system" see Woest: col.29 lines 6-27), to control at least one device taken from the group consisting of a computer numerical control device, a vale and a drive (control using the expansion module to control the air conditioning and lighting "A network control unit (NCU) in a facilities management system monitors and supervises heating ventilating and air conditioning (HVAC), lighting, and building functions" see Woest: col.29 lines 29-49) in order to produce controlled variation of system performance based on the quality of measured data (see Woest: col.7 lines 18-30)

It would have been obvious to one of ordinary skill in the art at the time of invention to create the invention of modified Swales to include (or to use, etc.) the server is enabled, via connection through the expansion module to one or more automation devices, to control at least one device taken from the group consisting of a computer numerical control device, a vale and a drive. as taught by Woest in order to produce controlled variation of system performance based on the quality of measured data (see Woest: col.7 lines 18-30).

15. Regarding claim 31, the modified Swales taught the web server according to claim 11, as set hereinabove. Swale further teaches wherein the first mechanism is a controller of components

and processes (Backplane driver and Ethernet driver use for controlling process see Swales: Fig.3 blocks 50 and 56), wherein the web server includes a TCP/IP stack (Fig.3 block 54) and wherein direct access to the real-time communication level is effected by a direct connection between the TCP/IP stack and an automation device with communication by means of a TCP/IP-based real-time Ethernet protocol (Ethernet and backplane driver user the TCP/IP stack protocol to transmit messages "The TCP/IP stack 54 calls the Ethernet driver 48 to transmit a message. The Ethernet driver 46 attempts to allocate a buffer from the shared memory 52. If it succeeds, it copies the message into the buffer, and places the buffer into the AM79C961 transmit queue" see Swales: col.5 lines 35-45).

16. Regarding claim 32, they are rejected for the same reason as claim 31 as set forth hereinabove.

17. Claims 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swales (US 6,321,272) in view of Lindner et al (US 6,640,140).

18. Regarding claim 34, Swales teaches a computer configured as a web server, comprising:

a plurality of software modules integrated into the web server (Swales: Fig.3 web server modules); and

a processing unit for executing the plurality of software modules (central processor provided various tasks "The operating system 44 allocates central processor (CPU) 46 to various tasks, provides memory management, and provides a set of message services and signal services" see Swales: col.5 lines 9-20),

wherein at least one of the integrated software modules is embodied as an automation module for direct integration of an automation functionality (programmable controller use to control the process control system "field of programmable controllers and more particularly to a system for the exchange of time-critical information between control devices coupled to an intranetwork such as would be common in the fields of factory automation and industrial process control" see Swales: col.1 lines 15-20), and

wherein the at least one automation module includes direct access to a real-time Ethernet via a further connection ("provide an interface between the general purpose network and the industrial control system that will allow the transfer of real time control data with guaranteed delivery times" see Swales: col.2 lines 31-34), wherein a real-time Ethernet connection is provided between the TCP/IP stack of the web server and a TCP/IP stack of an automation device ("The Ethernet driver 48 also provides a transmit request interface, and a receive indication interface to a TCP/IP stack 54" see Swales: col.5 lines 31-38) and is used for communication via a TCP/IP based real-time Ethernet protocol (Internet protocol to communicate and TCP/IP protocol was use in and out of network "General purpose network protocols using this hardware include the increasingly dominant TCP/IP, and Novell IPX, Digital Equipments DECNET and others. The TCP/IP-Ethernet combination, in particular, is the most widely deployed computer network interface in use, and therefore has minimum cost to implement and support" see Swales: col.1 lines 56-61; col.4 lines 6-7).

Swales does not explicitly disclose the at least one automation module and processes of an automation system of industrial processes, the at least one automation module includes a first connection to the components and processes of the automation system.

Lindner teaches the at least one automation module is embodied as a regulator and/or controller of components (the functionality services is within the PLC devices that provide functionality of PLC "The module 11 having ladder scan functionality services I/O modules 22 connected to devices 23 that are either sensors or actuators, solving so-called ladder logic to determine outputs commanding the next state of each associated device based on all inputs for that device" see Linder: col. 3 lines 49-64) and processes of an automation system of industrial processes (PLC are use to control industrial control system "programmable logic controller (PLC) 10a for use as part of an industrial control system or part of an automated system, hereinafter called simply a controller, includes according to the present invention a module 11 having ladder scanned scan functionality, and a web server module 12" Linder: col.3 lines 44-53), the at least one automation module includes a first connection to the components and processes of the automation system (TCP/IP stack with some MODBUS functionality that use TCP/IP protocol "The terminology MODBUS refers here to a family of simple, vendor-neutral communication protocols intended for supervision and control of automating equipment" see Linder: col.3 line 65 – col.4 line 14) in order to enhance automation system for control purpose in view of Lindner.

It would have been obvious to one of ordinary skill in the art, having the teachings of Swales and Lindner before them at the time the invention was made to modify the at least one automation module and processes of an automation system of industrial processes, the at least one automation module includes a first connection to the components and processes of the automation system as taught by Lindner in order to enhance automation system for control purpose in view of Lindner.

19. Regarding claim 35, the modified Swales taught the web server according to claim 34, as set hereinabove. Swales further comprises a connection to the Internet (web server module 30 within web server connects to network 42 see Swales: Fig.3 blocks 30 and 42).

20. Regarding claim 36, the modified Swales taught the web server according to claim 34, as set hereinabove. Swales further teaches internet protocols are provided for communication between the software modules and for communication between the software modules and components outside of the web server (the data transfer between the application program 22 and the user 2 this is clearly stated the communication between the application program and the user is use Internet protocol to communicate and TCP/IP protocol was use in and out of network "General purpose network protocols using this hardware include the increasingly dominant TCP/IP, and Novell IPX, Digital Equipments DECNET and others. The TCP/IP-Ethernet combination, in particular, is the most widely deployed computer network interface in use, and therefore has minimum cost to implement and support" see Swales: col.1 lines 56-61; col.4 lines 6-7).

21. Regarding claim 37, the modified Swales taught the web server according to claim 34, as set hereinabove. Swales further teaches the computer web server provides configuration and administration of the software modules (administrator access the web server to control the backplane application "The gateway 72 contains a firewall to provide the necessary security and couples the PLC system 70 through an intranetwork 74 controlled by a network administrator 76" see Swales: col.9 lines 65-67 and col.10 lines 1-12).

22. Regarding claim 38, Swales teaches a computer configured as a web server, comprising:

a plurality of software modules integrated into the web server (Swales: Fig.3 web server modules); and

a processing unit for executing the plurality of software modules (central processor provided various tasks "The operating system 44 allocates central processor (CPU) 46 to various tasks, provides memory management, and provides a set of message services and signal services" see Swales: col.5 lines 9-20), wherein:

at least one of the integrated software modules is embodied as an automation module for direct integration of an automation functionality (programmable controller use to control the process control system "field of programmable controllers and more particularly to a system for the exchange of time-critical information between control devices coupled to an intranetwork such as would be common in the fields of factory automation and industrial process control" see Swales: col.1 lines 15-20), and

wherein the at least one automation includes a second connection for directly accessing a real-time communication level of a real-time Ethernet through the TCP/IP stack of the web server, the web server configured able-to communicate via a real-time Ethernet connection ("provide an interface between the general purpose network and the industrial control system that will allow the transfer of real time control data with guaranteed delivery times" see Swales: col.2 lines 31-34), wherein a real-time Ethernet connection is provided between the TCP/IP stack of the web server and a TCP/IP stack of an automation device ("The Ethernet driver 48 also provides a transmit request interface, and a receive indication interface to a TCP/IP stack 54" see Swales: col.5 lines 31-38) between the TCP/IP stack of the web server and the TCP/IP stack of a further web server using a TCP/IP based real-time Ethernet protocol and is

used for communication via a TCP/IP based real-time Ethernet protocol (Internet protocol to communicate and TCP/IP protocol was use in and out of network "General purpose network protocols using this hardware include the increasingly dominant TCP/IP, and Novell IPX, Digital Equipments DECNET and others. The TCP/IP-Ethernet combination, in particular, is the most widely deployed computer network interface in use, and therefore has minimum cost to implement and support" see Swales: col.1 lines 56-61; col.4 lines 6-7).

Swales does not explicitly disclose the at least one automation module and processes of an automation system of industrial processes, the at least one automation module includes a first connection to the components and processes of the automation system.

Lindner teaches the at least one automation module is embodied as a regulator and/or controller of components (the functionality services is within the PLC devices that provide functionality of PLC "The module 11 having ladder scan functionality services I/O modules 22 connected to devices 23 that are either sensors or actuators, solving so-called ladder logic to determine outputs commanding the next state of each associated device based on all inputs for that device" see Linder: col. 3 lines 49-64) and processes of an automation system of industrial processes (PLC are use to control industrial control system "programmable logic controller (PLC) 10a for use as part of an industrial control system or part of an automated system, hereinafter called simply a controller, includes according to the present invention a module 11 having ladder scanned scan functionality, and a web server module 12" Linder: col.3 lines 44-53), the at least one automation module includes a first connection to the components and processes of the automation system (TCP/IP stack with some MODBUS functionality that use TCP/IP protocol "The terminology MODBUS refers here to a family of simple, vendor-neutral

communication protocols intended for supervision and control of automating equipment" see Linder: col.3 line 65 – col.4 line 14) in order to enhance automation system for control purpose in view of Lindner.

It would have been obvious to one of ordinary skill in the art, having the teachings of Swales and Lindner before them at the time the invention was made to modify the at least one automation module and processes of an automation system of industrial processes, the at least one automation module includes a first connection to the components and processes of the automation system as taught by Lindner in order to enhance automation system for control purpose in view of Lindner.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guang Li whose telephone number is (571) 270-1897. The examiner can normally be reached on Monday-Friday 8:30AM-5:00PM(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 19, 2010
GL
Patent Examiner

/Benjamin R Bruckart/

Primary Examiner, Art Unit 2478